



WCES 2012

Reading skills development among Greek tertiary education students: principles and practice of an experimental intervention

Dora Chostelidou

Aristotle University of Thessaloniki, 54124, Greece

Abstract

The study investigates the effect of a teaching intervention which was designed with the aim to improve reading skills among Greek tertiary education students on the basis of assessment of their perceived needs and deficiencies. Experimental research design was employed. The post-intervention data revealed that the experimental group outperformed the control group in terms of test scores while between-groups comparison indicated statistically significant differences in reading skills performance of the experimental group. The data signified the merits of the adopted reading component and the provision of training in reading skills based on sound principles and practice.

© 2012 Published by Elsevier Ltd. Selection and/or peer review under responsibility of Prof. Dr. Hüseyin Uzunboyulu
Open access under [CC BY-NC-ND license](http://creativecommons.org/licenses/by-nc-nd/4.0/).

Keywords: reading skills, reading process, principles, needs;

1. Introduction

Reading skill is regarded of major importance in ESP/EAP contexts given the prominent role of the English language which for many decades has been dominant in the vast majority of the scientific literature published all over the world (Mc Donough & Shaw, 2003; Grabe & Stoller, 2002). Moreover, the massive expansion of electronic communication has vastly increased the need for reading skills development as a means to access all the information made available (Grabe, 2009, p.5). Both undergraduate and post graduate students need to be well trained so as to be able to process large amounts of information from a variety of sources in line with the demands of their institutions. On the same line, good reading skills are in demand in professional settings. Therefore, the development of reading skills is strongly justified.

The concept of reading “can be thought of as a way to draw information from a text and to form an appropriate interpretation of that information” according to a tentative definition provided by Grabe & Stoller (2002, p.9). On the same line, the process of reading essentially involves “a sequence of skilled actions” (CEF, 2001, p. 90), which the reader inevitably has to be able to perform in order to: “perceive the written text (visual skills); recognize the script (orthographic skills); identify the message (linguistic skills); understand the message (semantic skills); interpret the message (cognitive skills)” (CEF, 2001, p. 91).

* Dora Chostelidou. Tel.: +0030-6944148077

E-mail address: chostelidou@yahoo.com ; dchoste@enl.auth.gr

Moreover, the ‘multiplicity’ of reading purposes and meanings the reader contributes to the text in the attempt to achieve text interpretation or comprehension (Urquhart, 1987) have to be considered. It should be put forward that reading is a process of complex nature primarily directed by the “reader’s purpose” (Jordan, 1997, p.143) while “each purpose emphasizes a somewhat different combination of skills” (Grabe & Stoller, 2002, p.9). What successful reading involves in Linderholm & Van den Broek’s (2002, p.778) views “is the ability to adjust processing in such a way that learning goals, as a function of reading purpose are met”.

The skill of reading can be further identified as “composed of several processes” (Dudley-Evans & St John, 1998, p.98) thus, consisting of a number of ‘sub-skills’ (Jordan, 1997) or ‘micro-skills’ (Dudley-Evans & St John, 1998). This is particularly representative of professional or academic contexts where the readers’ reasons are by nature differentiated from general comprehension purposes and call for an engagement of a wider variety of skills and processes in order to achieve effective comprehension of subject-specific content (Grabe & Stoller, 2002). Therefore, the development of a reading component based on the identification of reading skills in line with the learners’ needs and the provision of adequate training in reading skills which reflects sound principles and practice depending on the demands of the teaching and learning context is called for.

2. The study

2.1. *The aim and objectives of the study*

The general aim of the present study was to investigate the effect of a teaching intervention which was designed with the aim to improve reading skills among Greek tertiary education students on the basis of assessment of their perceived needs and deficiencies. More specifically, the objective of the study was to trial the experimental reading component, which was based on data obtained from the students by means of questionnaires and interviews, and the English for Specific Purposes (ESP) tutors and the subject specialists by means of semi-structured interviews (see Chostelidou, 2010) in the ESP classroom, and compare the effectiveness of its implementation to that of the presently adopted course.

2.2. *The Participants*

The participants involved in the study were 286 Business English students of tertiary education in Northern Greece streamed into the experimental group (N=147), who were exposed to the needs-based reading skills development and the control group (N=139), who were presented with the usual teaching approach for an academic semester. Their age range was 20-24 years. Also, their level of English language proficiency ranged from false beginner (38.7%) to upper intermediate (46%) and advanced (15.3%) for the experimental group and 35.4%, 46.9%, 17.7% respectively for the control group as suggested by their scores in the Oxford Placement Test (OPT).

It is acknowledged that the purpose for which English will be used in response to the demands of academic institutions or market forces constitute fundamental aspects of the ESP classroom which inevitably influence course design specification. In response to the demands of the needs of the learners which are both academic and professional, the particular teaching context can be regarded as English for Specific Academic Purposes (ESAP) rather than simply EAP or ESP given its special emphasis on the distinct features of Business English which distinguish it from other disciplines.

2.3. *Reading skills development: The focus of the needs based course*

The focus of the ESP reading component as suggested by the data of a needs analysis project (see Chostelidou, 2010) with respect to text types and sub-skills to be employed for reading skills development included the

following: the majority of the participants ranked “reading magazine or newspaper articles” ($m=3.74$) higher than “reading textbooks or manuals” ($m=3.74$). Furthermore, concerning the various sub-skills, the majority of the participants indicated “reading for gist” ($m=4.46$) to be of primary importance for them. Further sub-skills such as “reading to check information-identify details” ($m=4.29$), “identification of basic meanings” ($m=4.25$), and “reading and taking notes” ($m=4.09$) all attained considerably high mean values. Also, “reading rate development” ($m=3.98$), “reading for pronunciation purposes” ($m=3.72$), and reading to “establish and/ or evaluate the writer’s stance” ($m=3.52$) were considered for development. As the mean values of all sub-skills were quite high, it is suggested that they should all be practiced in the ESP syllabus as part of reading skills development.

2.4. The ESAP reading skills test

The focus of the pre- and post-test was to assess reading skills development through a variety of tasks, all designed with the intention of being fair to the test takers in the particular setting, which according to DeKeyser and Larson-Hall (2005:102) helps prevent a possible method effect. More specifically, the tasks reflected real-life professional and academic situations, as closely as possible given the constraints and the artificiality of the testing environment. The format of the test as well as the operations tested are presented on table 1.

Table1. The Format of the Listening ESAP Test

	Main Skill Focus	Type of Task	Response
A.1	Reading - scanning and gist	Identifying what a text is about	Multiple choice
A.2	Reading - understanding processes or courses of action	Identifying information - flowchart completion	Gap filling
A.3	Reading for gist and specific information	Tracing the development of an argument	Gap filling
A.4	Reading-scanning and specific information	A summary with sentence level gaps	Matching

The idea of ‘authenticity of task’ (Douglas, 2000; Bowles, 2006) was crucial throughout the test. The starting point for any task was to ensure that the students’ involvement in text-processing operations of the kind a language user in the real professional or academic world would actually read a text. In particular, the text types used for assessing reading were informational texts on study or specialism-related in their content and the task formats were determined by a skills focus and the most appropriate format to elicit the students’ understanding of the text.

In order to establish the reliability of the test, Cronbach α coefficient was estimated and identified as 0.71 for the pre-test and 0.82 for the post- test aggregated for both groups, figures which are regarded acceptable and satisfactory as in general, acceptable reliability indexes range from 0.70 and above (Nunally, 1978).

2.5. Data analysis of the ESAP Test

In order to evaluate the effect of the teaching intervention on the students’ reading performance in the ESAP test, scores obtained from the pre- and post-intervention test were analyzed for statistical difference by means of ANOVA (Analysis of Variance) in order to investigate the differences between the mean scores of the examinees per group, experimental and control. The dependent variables were the subjects’ mean scores in reading at the pre- and post-intervention stage. The independent variables were the experimental and control group and the teaching intervention. Means and standard deviations as well as F-ratios were calculated. The level of confidence for these analyses was set at .05. It should be noted that the development of reading skills was tested on the basis of the additive score of all items in the corresponding part of the test.

3. Results

3. 2. Reading Skills Development at the pre- and post-intervention stage

In the attempt to check the effect of the teaching intervention on the experimental and control groups regarding the reading skills section of the ESAP test at the pre- and post-level, the process of ANOVA indicated that there is statistically significant interaction between the two groups of students ($F(1,284) = 20.983, P < 0.001$). In particular, as shown in table 2, both the experimental and control group achieved statistically significant progress in terms of reading skills as a result of the tuition they had received during the intervention.

Table 2. Comparison of Pre- and Post-intervention measurements per Group for Reading Skills

	Groups	Mean	Std. Deviation	N
Experimental	Reading Pre	10.4 b	3.4	147
	Reading Post	12.7 a	3.4	147
Control	Reading Pre	10.8 b	3.4	139
	Reading Post	11.8 a	3.5	139

Nevertheless, as presented in table 3, despite the fact that the two groups were not statistically significant different at the pre-intervention measurement, which suggests that the groups were at the same level in terms of reading competence in the baseline comparison, at the post-intervention measurement the experimental group is statistically significant differentiated from the control group in terms of the progress it exhibited. More specifically, at the post-intervention measurement the experimental group demonstrated a better performance in reading skills development as it attained a mean score of 12.7 out of 19 whereas the respective mean score of the control group was 11.8 out of 19. At the baseline the scores of both groups were 10.4 and 10.8 respectively.

Table 3. Comparison of the two Groups at each stage for Reading skills

	Groups	Mean	Std. Deviation	N
Reading Pre	Experimental	10.4 a	3.4	147
	Control	10.8 a	3.4	139
Reading Post	Experimental	12.7 a	3.4	147
	Control	11.8 b	3.5	139

4. Discussion

The research data highlighted the success of the experimental teaching intervention as suggested by the learners' enhanced performance in relation to reading skills and indicated the significance of the needs-based approach to ESP course design (Cowling, 2007; Long, 2005; Dudley-Evans & St. John, 1998; West, 1997) towards optimizing learning opportunities. More specifically, the difference of the mean scores between the measurements at the post-intervention and pre-intervention stages for the experimental and the control group signified the effect of the teaching intervention for the experimental group. Accordingly, the teaching intervention which was based on the experimental needs-based syllabus document which focused on reading skills development can be considered more efficient than the traditional teacher-centered intervention in terms of mean scores. In effect, the merits of the adopted principles and practice of the experimental teaching intervention in relation to reading skills development which are believed to have made the difference, have to be regarded and highlighted.

In the case considered the notion of reading as an 'interactive process' (Carrell, Devine, & Eskey, 1988; Grabe, 1991), which evolved from schema theory (Carrell & Eisterhold 1983), was put forward and reading was treated as a "complex information processing skill in which the reader interacts with the text in order to (re)create meaningful

discourse” (Silberstein, 1994, p.12). The notion of interactive reading is established on the basis of the personal and cultural knowledge used by the reader for interpreting text information in order to 'create' meaning' (Upton, 2004, p. iv). It should be noted that this framework not only involved decoding meaning from print with bottom-up skills on the part of the readers but also the implementation of top-down skills to activate their prior knowledge of content and use textual cues to help them cope with new information (Spector-Cohen et al., 2001). The treatment of reading as an interactive process which involves both bottom-up and top-down approaches is particularly effective in teaching reading skills for academic or specific purposes (Crawford-Camiciottoli, 2003, p.28) and has been regarded particularly effective in the case considered.

In addition, the adopted approach to reading acknowledged that whether in educational or professional settings, individuals are required to “read and interpret informational texts” which are linked with the tasks they engage, the goals they set for themselves or the goals set for them. In effect, efficient reading in these settings necessitated the development of processes such as synthesis, interpretation, evaluation, and selective use of information from the text (Grabe, 2009, p.5). It should be noted that the ability to deploy various skills is associated with the attainment of better performance on reading comprehension tests (Anderson, 1991), which is in line with the approach adopted in the particular teaching context.

Furthermore, in the process of identifying essential reading processes which differentiate efficient from inefficient readers as suggested by Ur (1996, p.148) cited in Mc Donough and Shaw (2003, p.95), the following were considered for development in the experimental teaching intervention; in particular, the ability to change reading speed depending on the text so as to access content easier; the selection of significant text features to focus on while skimming the rest of the text; the guessing or inferring of meaning from context; the predicting of outcomes, the use of background knowledge to facilitate comprehension of meaning, the acceptance of the challenge to be motivated to purposefully read the text, and the adoption of appropriate reading strategies (ibid).

The adopted approach to reading skills development which actively employed the reader and encompassed the real purpose for which someone engages in the reading process, that is in order to identify the content conveyed by the text (Text as a Vehicle for Information ‘TAVI’) , as Johns and Davies (1983) argue is in direct contrast to traditional approaches to reading. The latter tended to view reading as a passive skill closely replicating early versions of bottom up approaches to reading (Wallace, 2001) according to which the reader’s role was perceived to create piece-by piece mental translation of the information presented in the text adopting a mechanical pattern (Grabe & Stoller, 2002). This rather outdated approach which viewed the text as an object to be treated by the reader (Text as a Linguistic Object ‘TALO’, Johns & Davies, 1983) therefore, tended to reject any contribution to the reading comprehension process on the part of the learner, who seemed to be regarded as an empty vessel ready to receive the information provided by the writer (Mc Donough & Shaw, 2003, p.92).

This shift in the approach to reading and the positive attitude towards the "TAVI" approach is justified on the basis of the following principles according to which the ESP learners were trained. More specifically, particular focus was laid on the development of their skill to be able to: a) extract information accurately and quickly rather than focus on language details; b) understand the macro-structure of the text rather than simply study language; and c) apply the information conveyed in the text for real life purposes, (Johns and Davies, 1983:1). It is these issues which were largely appreciated by the target group of learners considered as indicated by their test results. It cannot be ignored that the substantial change undergone in the teaching of reading in the case considered proved highly efficient as the scores of the experimental group provide evidence for the students having acquired considerable skills and become adequately competent in the process of reading as regards aspects of the target language in their field of study. Also, they are considered to have developed as readers to engage confidently in comprehending texts for academic or professional purposes in effect of the focused training they were provided with.

In conclusion, the development and implementation of the needs-based experimental reading component can be regarded as highly effective in enhancing the learners’ performance and promoting their achievement in ESP as more effective readers.

References

- Anderson, N. J. (1999). *Exploring second language reading*. Boston: Heinle & Heinle.
- Bowles, H. (2006). Bridging the gap between conversation analysis and ESP: an applied study of the opening sequences of NS and NNS service telephone calls. *English for Specific Purposes*, 25(3), 332-357.
- Carrel, P., J. Devine & Eskey, D. (1988). (Eds). *Interactive Approaches to Second Language Reading*. Cambridge: Cambridge University Press.
- Council of Europe (2001) *Common European Framework of Reference for Languages: Learning, teaching, assessment*. Cambridge: Cambridge University Press.
- Cowling, J. D. (2007). Needs analysis: planning a syllabus for a series of intensive workplace courses at a leading Japanese company. *English for Specific Purposes*, 26(4), 426-442.
- Crawford-Camiciottoli, B. (2003). Metadiscourse and ESP reading comprehension: An exploratory study. *Reading in a Foreign Language* 15(1). accessed 10/1/2010 <http://nflrc.hawaii.edu/rfl/april2003/camiciottoli/camiciottoli.html>.
- DeKeyser R.M., & Larson-Hall J. (2005). What does the critical period really mean? In J.F. Kroll, & A. De Groot (Eds.), *Handbook of bilingualism* (pp. 88-125). Oxford: Oxford University Press.
- Douglas, D. (2000). *Assessing language for specific purposes*. Cambridge: Cambridge University Press.
- Dudley-Evans, T. & St. John, M. (1998). *Developments in English for specific purposes: A multi-disciplinary approach*. Cambridge: CUP.
- Grabe, W. (1991). Current development in second language reading research. *TESOL Quarterly*, 25(3), 375-406.
- Grabe, W. (2009). *Reading in a Second Language: Moving from theory to practice*. New York: CUP.
- Grabe, W., & Stoller, L. F. (2002). *Teaching and researching reading*. Harlow: Pearson Education.
- Johns, T., & Davies, F. (1983). Text as a vehicle for information. *Reading in a foreign language* 1(1), pp.1-19.
- Jordan, R.R. (1997). *English for academic purposes: A guide and resource book for teachers*. Cambridge: Cambridge University Press.
- Linderholm, T., & van den Broek, P. (2002). *The effects of reading purpose and working memory capacity on the processing of expository text*. *Journal of Educational Psychology*, 94, pp.778-784.
- Long, M. H. (2005). Methodological issues in learner needs analysis. In M.H. Long (Ed.), *Second language needs analysis* (pp.19-76). Cambridge: Cambridge University Press.
- Mc Donough, J., & Shaw, C. (2003). *Materials and Methods in ELT (2nd ed.)*. UK: Blackwell Publishing Ltd.
- Nunnally, J. C. (1978). *Psychometric Theory*. New York: McGraw Hill Book Co.
- Silberstein, S. (1994). *Techniques and resources in teaching reading*. Oxford: Oxford University Press.
- Spector-Cohen, E., Kirschner, M., & Wexler, C. (2001). Designing EAP courses at the university level. *English for Specific Purposes Journal*, 20, pp.367-386.
- Upton, T.A. (2004). *Reading Skills for Success: A Guide to Academic Texts*. The University of Michigan Press: Ann Arbor, Michigan.
- Ur, P. (1996). *A course in language teaching: Practice and theory*. Cambridge: Cambridge University Press.
- Urquhart, A. H. (1987). Comprehensions and Interpretations. *Reading in a Foreign Language*, 3(2), 387-409.
- Wallace, C. (2001). Reading. In R. Carter and D. Nunan (Eds.), *The Cambridge guide to teaching English to speakers of other languages* (pp. 21-27). Cambridge: Cambridge University Press.
- West, R. (1997). Needs analysis: State of the Art. In Howard, R., & Brown, G. (Eds.), *Teacher education for LSP* (pp. 68-79). Clevedon, UK: Multilingual Matters.